



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,290	03/17/2004	Emanuel Kahana	CE10676R	3614

22917 7590 01/11/2006

MOTOROLA, INC.
1303 EAST ALGONQUIN ROAD
IL01/3RD
SCHAUMBURG, IL 60196

EXAMINER

D AGOSTA, STEPHEN M

ART UNIT	PAPER NUMBER
----------	--------------

2683

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/802,290	Applicant(s) KAHANA, EMANUEL	
	Examiner Stephen M. D'Agosta	Art Unit 2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-11,13-19,21 and 22 is/are rejected.
- 7) ☒ Claim(s) 3,12,20 and 23 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Information Disclosure Statement

The information disclosure statement filed 6-28-2004 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because there is no date associated with one IDS entry (eg. the paper authored by the applicant). It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

Claim Objections

Claim 10 objected to because of the following informalities: There appears to be a typo in this claim since it refers back to itself. The examiner believes it should depend from claim 9. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4-11, 13-19 and 21-22 rejected under 35 U.S.C. 103(a) as being unpatentable over Holma et al. "WCDMA for UMTS" and further in view of Persson et al. US 6,823,193.

As per **claims 1, 9, 17 and 21**, Holma teaches a method of performing a soft handoff (section 9.2.1.3 teaches soft handoff power control) comprising the steps of:

receiving a request for a change in power from a communications device at a plurality of base stations (1st sentence of Downlink Power Drifting teaches the "mobile sends a single command to control downlink transmission powers; this is received by all BTS's in the active set...");

sending the request from at least one of the base stations to a central processing station (Downlink Power Drifting section teaches the "...RNC can receive information from the base stations concerning the transmission power levels...". Hence the examiner interprets the RNC as a central processing unit);

but is silent on determining at the central processing station a power adjustment ratio for each of the plurality of base stations; and

sending at least one control signal from the central processing station to each of the plurality of base stations to adjust the power output of at least one of the plurality of base stations.

Persson teaches downlink transmit power synchronization during diversity handover (title) to minimize BTS power drift (abstract). Persson is different in that the mobile does not request a change but rather the network determines that a change is

Art Unit: 2683

required (see figure 4b). Figure 6, step #202 shows that the mobile measures received power and sends it to the RNC/central processor via the BTS's, whereby the RNC calculates power offset, step #204 and sends offsets for each BTS link to said BTS, step #206, 208 and 210, which reads on the claim.

With further regard to claim 17, figure 9.7 states that both BTS's detect/receive PC command from mobile.

It would have been obvious to one skilled in the art at the time of the invention to modify Holma, such that it determines at the central processing station a power adjustment ratio for each of the plurality of base stations and sends at least one control signal from the central processing station to each of the plurality of base stations to adjust the power output of at least one of the plurality of base stations, to provide means for a central processor to command power control for any/all BTS's involved in the soft handover of the mobile.

As per **claims 2, 11, 19 and 22**, Holma teaches claim 1/10/18/21 further comprising the steps of: utilizing an algorithm to determine the power adjustment ratio at the plurality of base stations (see Persson, step #204).

As per **claims 4 and 10**, Holma teaches claim 1/9 wherein the step of sending at least one control signal from the central processing station to each of the plurality of base stations is performed during a soft handoff (Holma teaches power control during Soft Handover, Section 9.2.1.3. The examiner notes that Persson teaches a diversity handover as well, abstract and shows in figure 6, step 206 power control commands going to multiple BTS's).

As per **claims 5 and 13**, Holma teaches claim 1/9 wherein the communications device is a cellular telephone (Holma teaches a mobile device which is interpreted as a cell phone. Holma teaches a soft handover which is inherent in cellular phone communications).

Art Unit: 2683

As per **claims 6-7 and 14-15**, Holma teaches claim 1/9 **but is silent on** wherein the communications device is a personal digital assistant/laptop.

The examiner takes **Official Notice** that it is well known in the art for mobile devices such as PDA's and Laptops to have transceivers which can communicate with cell towers.

It would have been obvious to one skilled in the art at the time of the invention to modify Holma, such that the device is a PDA/Laptop, to provide means for supporting any device with a cellular transceiver.

As per **claim 8**, Holma teaches claim 1 wherein the central processing station is configured to send a power control signal (figure 6, step #206-210 teaches sending power control signals from the RNC/central processor to the BTS's).

As per **claim 16**, Holma teaches claim 10 **but is silent on** wherein the communication system is a CDMA system.

Persson teaches support for CDMA systems (C1, L15-25).

It would have been obvious to one skilled in the art at the time of the invention to modify Holma, such that the system is a CDMA system, to provide support for industry standard cellular networks/protocols which are well known and heavily used.

Art Unit: 2683

As per **claim 18**, Holma teaches claim 17 **but is silent on** wherein the central command station comprises a processor configured to determine, a power control ratio for each of the first base station and the second base station.

While the examiner interprets Holma's RNC as having a processor to determine power control, Persson shows in figure 2, a processor/controller #50 which determines/calculates power control commands (see figure 4b, shows RNC "Calculates Downlink reference power Pref., as well as figure 6, steps 204-210).

It would have been obvious to one skilled in the art at the time of the invention to modify Holma, such that the central command station comprises a processor configured to determine, a power control ratio for each of the first base station and the second base station, to provide means for a processor to be located centrally at the control node which reduces the amount of hardware required since each BTS will not need a processor to handle soft handoff power control.

Allowable Subject Matter

Claims 3, 12, 20 and 23 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As per **claims 3, 12, 20 and 23**, the prior art does not teach, alone or in combination, an algorithm is at least partially defined by: $p1a=p2a=(p1b+p2b)/2$; wherein $p1b$ and $p2b$ are power levels before a handoff transition; wherein $p1a$ and $p2a$ are power levels after a handoff transition.

Persson teaches a calculation which is not the same.

Knutsson teaches calculations (see figures 5a-5b) which are not the same.

Therefore, the examiner believes these claims to be novel.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. Butovitsch et al. US 6,708,041
2. Aoki US 2002/0067708
3. Almgren et al. US 5,574,982
4. Self et al. US 5,495,484
5. Kim et al. US 6,937,878
6. Czaja et al. US 6,937,583
7. Sundelin et al. US 6,144,861
8. Song US 6,128,493
9. Knutsson et al. US 6,085,108
10. Chinitz et al. US 6,233,461

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 571-272-7862. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stephen D'Agosta
Primary Examiner

